

Parametrix, Inc.

13020 Northup Way Bellevue, WA 98005
206-453-2690 Fax 206-860-0558

ru Ryman
503-620-7658

**SOIL QUALITY ASSESSMENT/REMEDICATION
715 PLUM ST. SITE
OLYMPIA, WASHINGTON**

Prepared for

**WEST STAR CORPORATION
P.O. Box 1936
Olympia, Washington 98057.**

Prepared by

**PARAMETRIX, INC.
13020 Northup Way
Bellevue, Washington 98005**

January 22, 1990

Following removal of the drain pipe and associated stained soil and gravel, a second visit to the sight was requested by West Star and made by Parametrix to sample soil from test holes to the South, East, and North of Test Hole No. 1. Soil was excavated from these holes to the depth of the peat layer and samples recovered from the sidewall just above the peat layer. No visual contamination was observed in samples from these test holes. A very slight hydrocarbon odor was detected in the soil. Soil samples were also recovered at this time from the stockpile of soil removed from Test Hole No. 1 where the pipe was removed.

SOIL SAMPLING AND ANALYSIS

Soil samples recovered during the excavation activities were collected and composited using stainless steel spoons and bowls. Samples were placed into wide-mouth glass jars, labeled, and stored in coolers prior to being taken to Spectra Laboratories for analysis. Sampling utensils were washed clean using Alconox detergent and rinsed with deionized water between and following sample collection.

Soil samples collected during the initial excavation and the second visit to the site were identified and analyzed as shown in Appendix A - Summary of Sampling Data.

CONCLUSIONS AND RECOMMENDATIONS

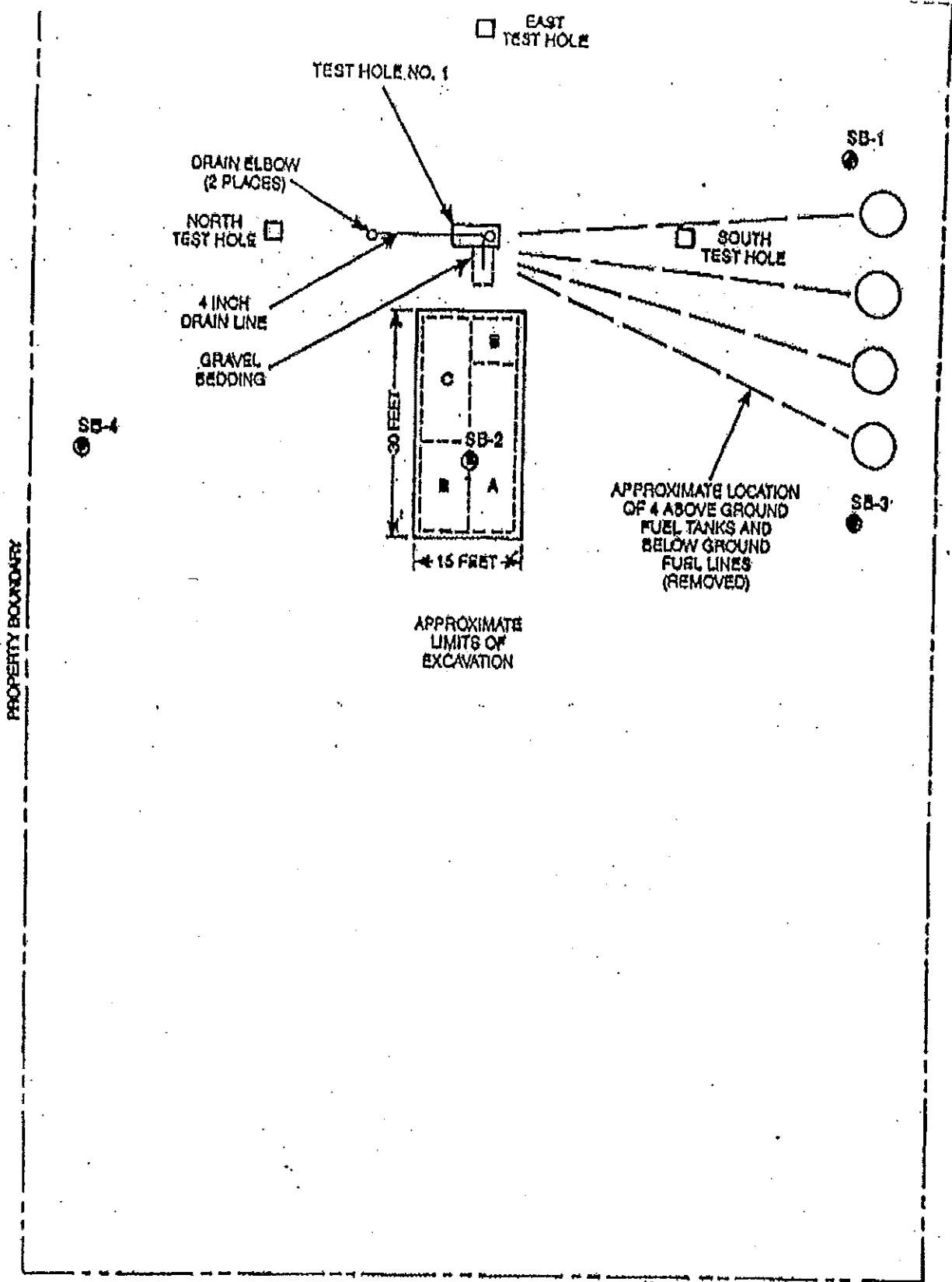
The relatively low concentrations of petroleum contamination within the site, as shown in data collected by Groundwater Technologies (Oct., 1989), were originally thought to be the result of infiltration by small amounts of petroleum product released onto the surface of the site during operation of the petroleum distribution facility. This may have been the source of at least some of the contamination present. However, the drain pipe containing petroleum product could have been an additional source of that contamination.

The configuration of the drain pipe suggests that it may have been installed as a storm drain for water runoff from the roof or ground surface of the fueling bay area. At some time, the drain was abandoned and capped. Likely at that same time or previously, some amount of petroleum product was discharged into the drain. Neither excavation of the site, nor soil samples recovered from around the site suggest that was a significant amount of petroleum product. The amount released was apparently largely contained within the remaining drain pipe and gravel pack which it discharged to. Trace amounts of this product appear to have migrated within the site via perched water zones which accumulate above the peat layer from rain water infiltration. Verification soil samples collected from this perched zone indicate TPH concentrations below the current cleanup guidelines.

Total Petroleum Hydrocarbon (TPH) analysis performed on samples recovered from the site support this conclusion in that only soil excavated in the immediate vicinity of the drain pipe (Sample ID: Stockpile Composite, TPH 9,386 ppm) show petroleum contamination levels in excess of Ecology's cleanup guideline of 200 ppm. All other samples (13 total, see Appendix A) fall within the current cleanup guidelines.

Based upon the existing site data and removal of the soil surrounding the drain pipe and the borderline contaminated soil near Borehole SB-2, there appears to be a low potential for remaining petroleum contamination above the current clean-up levels to exist at the site.

Since the TPH levels of the stockpiled soils from the excavation were below the 200 ppm clean-up guideline, West Star may dispose of the soil at their discretion. Contaminated soils removed from the area around the drainpipe and gravel should be contained in barrels and properly disposed of at the Thurston County Landfill following acquisition of approval/permit from the Thurston County Health Department for disposal of petroleum contaminated soil.



□ Test Holes by Paramatrix, Inc.
 SB-1 ⊙ Boroholes by Groundwater Technology (October, 1989)

Figure 1.
 Site Diagram
 715 Plum Street